

REMARKS

The Examiner rejected claims 22-34, and 37 under 35 U.S.C. § 112, second paragraph, as indefinite. The Examiner also rejected claims 35-38, 41, and 42 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Smith. Additionally, the Examiner rejected claims 39 and 40 under 35 U.S.C. § 103(a) as obvious over Smith as applied to claim 35 above, and further in view of either Langer or Marpel '475. Further, the Examiner rejected claims 8, 9, 20, 21, 22, 23, 33, 25, 26, 35-42 under 35 U.S.C. § 103(a) as obvious over Smith, in view of Marpel '475. Lastly the Examiner rejected claims 27-32, 34 under 35 U.S.C. § 103(a) as obvious over Smith in view of either Marpel or McFarland et al.

The Applicants appreciate the Examiner's indication that claims 1-7 are allowed.

The Section 112, Second Paragraph:

The Examiner rejected claims 22-34 and 37 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, the Examiner indicated that there were various minor informalities, such as antecedent basis issues in claims 22, 27, and 37. It is submitted that these antecedent basis issues have been corrected above and that the section 112 rejections have been overcome and should therefore be withdrawn.

The Section 102(b) Claim Rejections:

The Examiner rejected claims 35-38, 41 and 42 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Smith.

Claim 35 has been amended as set forth above to clarify that the outlet passage is in communication with a remote vacuum source located exterior to the housing. It is submitted that this is inherent in the term outlet passage, i.e. that the outlet passage communicates with the exterior of the housing. It is thus submitted that this clarification was not made for purposes of patentability.

Smith does not teach or suggest the invention of Claim 35 either alone or in combination with any other reference of record for at least the reason that Smith does

not include any outlet passage, let alone an outlet passage that communicates with an exterior vacuum source. Smith discloses a vacuum source in the interior of the housing. Applicants' claimed invention is thus a significant improvement over Smith in that it is less costly to make, is smaller, and does not have any moving parts. Additionally, Smith teaches a microscopic slide that rests in a tray, which is in communication with the stepper motor. The stepper motor moves the tray laterally in incremental distances to obtain multiple samples on a single slide. The housing has to be large enough in order to retain the stepper motor. Moreover, to the extent Smith teaches a retaining mechanism, it does not teach a retaining mechanism that retains the slide in a fixed position. Instead, it teaches moving the slide to multiple positions with respect to the inlet opening, which again increases the size and cost of the housing in Smith and teaches away from Applicants' claimed invention. Smith therefore does not teach or suggest Applicants' claimed invention.

It is therefore submitted that claim 35 is allowable over the art of record and that claims 36-42, which depend from claim 35, are allowable for the same reasons.

The Section 103(a) Claim Rejections:

The Examiner rejected claims 8, 9, 20, 21, 22, 23, 33, 25, 26, 35-42 under 35 U.S.C. § 103(a) as obvious over Smith, in view of Marpel '475. The Examiner also rejected claims 27-32, 34 under 35 U.S.C. § 103(a) as obvious over Smith in view of either Marpel or McFarland et al.

Claim 8-11:

Claim 8 has been amended to specifically require a method of gathering airborne particles in an air sampler. The method includes connecting a vacuum source to an outlet opening of the sampler. Air is then drawn into an inlet opening formed in the top portion of the sampler with the inlet opening being substantially smaller than an upper surface of the top portion. The inlet opening exposes an inlet passageway configured such that air accelerates after it enters the inlet opening and enters an acceleration portion of the inlet passageway. Thereafter, the inlet passageway includes a laminar section, which directs the air such that it impacts the adhesive media in a perpendicular direction.

The Examiner agrees that Smith teaches a device having an inlet opening with an inlet passage 23 that only converges toward the slide 36, i.e. does not have both a laminar and a venturi portion. Accordingly, the air entering the inlet opening will accelerate in the passage, but will not impact the microscopic slide in a perpendicular fashion. Instead, as will be readily understood by one of skill in the art, much of the air will impact the slide at an angle which can adversely impact the trace results collected on the microscopic slide 36. While Smith does not teach a laminar portion, the Examiner contends that it would be obvious to combine the "orifice" in Marpel with the opening in Smith. The Applicants respectfully disagree. It is submitted that one of ordinary skill in the art would understand that the orifice in Marpel does not provide any acceleration. Instead, the opening of the orifice is merely chamfered to provide a larger opening and is not sized large enough to provide any acceleration – such as the passageway in Smith. In reality, the "orifice" in Marpel is not a passageway, but merely an opening. As such it does not teach or suggest Applicants' invention of claim 8 as Smith does not provide both a section for accelerating the air and a separate section for directing all the air in a perpendicular direction, it does not embody every element of claim 8. Further, there is no suggestion to provide a device with an inlet passageway that accelerates the air after entry and then allows the air to flow perpendicular to the slide.

It is thus submitted that claim 8 clearly defines over the art of record. It is also submitted that claims 9 – 11, which depend from claim 8 are allowable for the same reasons.

Claims 20-26:

Applicants' invention of claims 20 and 22 require an inlet passageway in communication with an inlet opening to convey air entering the sampler to the slide. The inlet opens to a passageway having a venturi section located immediately adjacent the inlet opening and a laminar section located adjacent the venturi section. Additionally, the passageway has a non-circular opening adjacent said slide to direct the air at the slide in a generally elongated fashion.

Such a configuration is not taught by either Smith or Marpel. As discussed above, the Smith reference at best only teaches a venturi section for accelerating air; it

does not teach any laminar section and therefore does not teach or suggest the benefits provided by such a configuration. Moreover, the Marpel reference teaches a circular inlet opening with no associated inlet passageway. Thus, neither reference alone or in combination teaches an inlet passageway with a venturi portion and a laminar portion, with the laminar portion having a non-circular configuration.

Accordingly, it is submitted that none of the references of record teach or suggest Applicants' invention of claims 20 and 22. Moreover, it is submitted that claim 21, which depends from claim 20, is allowable for the same reasons. It is also submitted that claims 23 - 26, which depend from claim 22, are allowable for the same reasons.

Claims 27-34

Applicants' invention of claim 27 requires an outlet opening that is in communication at one end with a remote vacuum source. It is therefore submitted that claim 27 is allowable for the same reasons provided above in connection with claim 35. It is submitted that claim 27, which requires a recessed portion formed in the housing that is sized to receive at least a portion of the slide is distinguishable over the cited references for this additional reason.

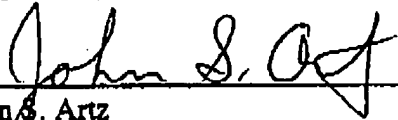
It is therefore submitted that claim 27 is allowable over the art of record and that claims 28-34, which depend from claim 27, are allowable for the same reasons.

CONCLUSION

It is submitted that all objections and rejections of record have been overcome and that all pending claims are now in a condition for allowance. A Notice of Allowance is therefore respectfully solicited.

If the Examiner should have any questions, he is urged to contact the undersigned at 248-223-9500.

Respectfully submitted,



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